

(b) At the high light intensity, which experimental factor, light or temperature, is effectively controlling the rate at which the plant may photosynthesise? Explain your answer. (2 marks)

(c) Summarise the relationship between rate of photosynthesis and temperature at the low light intensity. (1 mark)

(d) At the low light intensity, which experimental factor, light or temperature, is effectively controlling the rate at which the plant may photosynthesise? Explain your answer. (2 marks)

(e) At the low light intensity, what would be the effect of doubling the level of atmospheric carbon dioxide during the experiment? Explain your answer. (2 marks)

(f) At both light intensities, the rate of photosynthesis decreases at higher temperatures. How can you explain this? (2 marks)

Question 2 (15 marks)

In Indonesia, a population of fowl was sampled when an area was being cleared for an oil palm plantation. All individuals in the area were collected, sexed and weighed. The individual weights were then organised into weight classes and the data is shown below.

NUMBERS OF FOWL WEIGHING:										
	up to 100 g	101- 200 g	201- 300 g	301- 400 g	401- 500 g	501- 600 g	601- 700 g	701- 800 g	801- 900 g	more than 900 g
Males	150	91	73	60	55	50	50	10	8	5
Females	141	95	69	71	65	45	40	39	30	1

Table showing the number of individuals in ten different weight ranges in an Indonesian fowl population

- (a) Showing males and females separately, but on the same piece of paper, plot a histogram (bar graph) showing the number of individuals in each weight class. (Plot weight classes on the horizontal axis and number of individuals on the vertical axis). (4 marks)
- (b) Explain the decline in the numbers of birds as they get heavier. (1 mark)
- (c) Calculate and explain the ratio of males to females weighing up to 100g. (2 marks)